Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-41 (cancelled).

Claim 42 (currently amended): A fuel cell system comprising:

a power generation unit provided with a conduit for an oxidant gas containing at least oxygen;

a heat radiation unit connected to a first side of said power generation unit so as to radiate heat from said power generation unit;

a heat transfer portion extending in said heat radiation unit from a separator inside said power generation unit;

a gas flow unit configured to suck said oxidant gas into a first intake port disposed on a second side of said power generation unit; ~~and~~

a cooling unit configured to suck said oxidant gas into a second intake port disposed on the second side of said power generation unit and adjacent to said first intake port~~, wherein said cooling unit is driven independently from said gas flow unit so as to cool said heat radiation unit~~;

a plurality of temperature detectors which detect a temperature of the power generation unit, the heat radiation unit, and the oxidant gas; and

a humidity detector which detects a humidity of the oxidant gas,

wherein an amount of moisture located inside the power generation unit and a temperature of the power generation unit are determined based on the temperatures detected by the plurality of temperature detectors and the humidity detected by the humidity detector,

wherein when the amount of moisture located inside the power generation unit and/or the temperature of the power generation unit deviate from a stable zone of the power generation unit having a proper moisture content and appropriate temperature, the cooling unit is driven independently from said gas flow unit to return a state of the power generation unit to the stable zone, and

wherein when the amount of moisture located inside the power generation unit is superfluous, the superfluous moisture is discharged with air by the gas flow unit.

Claim 43 (previously presented): The fuel cell system as set forth in claim 42, wherein said power generation unit comprises:

a joint body including a conductor having ionic conductivity and electrodes opposed to each other with said conductor therebetween; and

a plurality of separators for clamping said joint body therebetween.

Claim 44 (previously presented): The fuel cell system as set forth in claim 43, wherein said conductor includes a proton conductor.

Claim 45 (cancelled).

Claim 46 (previously presented): The fuel cell system as set forth in claim 43, wherein said separators each have a water suction unit configured to suck and remove water from said conduit.

Claim 47 (previously presented): The fuel cell system as set forth in claim 43, wherein said power generation unit has a stack structure in which said joint body and said separators are laminated.

Claim 48 (previously presented): The fuel cell system as set forth in claim 47, wherein said separators each have an in-plane conduit for supplying a fuel into a plane where said separator and said joint body make contact with each other.

Claim 49 (previously presented): The fuel cell system as set forth in claim 47, wherein said separators each have a supply hole for supplying the fuel into said in-plane conduit, and a discharge hole for discharging the fuel from said in-plane conduit.

Claim 50 (previously presented): The fuel cell system as set forth in claim 49, wherein between the adjacent separators, said supply holes are connected to each other to form a supply passage for supplying the fuel to said separators, and said discharge holes are connected to each other to form a discharge passage for discharging the fuel from said separators.

Claim 51 (previously presented): The fuel cell system as set forth in claim 48, wherein a sectional area of a connection portion where said in-plane conduit is connected to said supply passage is smaller than a sectional area of said in-plane conduit.

Claim 52 (previously presented): The fuel cell system as set forth in claim 48, wherein a sectional area of a connection portion where said in-plane conduit is connected to said discharge passage is smaller than a sectional area of said in-plane conduit.

Claim 53 (previously presented): The fuel cell system as set forth in claim 48, wherein a sectional area of a connection portion where said in-plane conduit is connected to said supply passage is smaller than a sectional area of a connection portion where said in-plane conduit is connected to said discharge passage.

Claim 54 (previously presented): The fuel cell system as set forth in claim 48, further comprising a water discharge unit configured to discharge water from said in-plane conduit by generating a difference in pressure on said water between the supply passage side and the discharge passage side, in said in-plane conduit in which said water is accumulated.

Claim 55 (previously presented): The fuel cell system as set forth in claim 54, wherein said water discharge unit is configured to open a part of said discharge passage to the atmosphere so as to generate said pressure difference and thereby to discharge said water from said in-plane conduit.

Claim 56 (previously presented): The fuel cell system as set forth in claim 42, wherein said cooling unit causes a gas stagnating in proximity of at least said heat radiation unit to flow so as to release heat from said heat radiation unit.

Claim 57 (previously presented): The fuel cell system as set forth in claim 42, further comprising a detection unit configured to detect an environmental condition for controlling driving of said gas flow unit and said cooling unit.

Claim 58 (previously presented): The fuel cell system as set forth in claim 57, wherein said detection unit detects at least one of temperature and humidity as said environmental condition.

Claim 59 (previously presented): The fuel cell system as set forth in claim 57, wherein said detection unit it arranged at respective positions so as to be capable of detecting the temperature and humidity of said oxidant gas supplied to said power generation unit, the temperature and humidity of said oxidant gas discharged from said power generation unit, and the temperature of said power generation unit.

Claim 60 (previously presented): The fuel cell system as set forth in claim 57, further comprising a control substrate supporting thereon a control circuit for controlling driving of at least said gas flow unit and said cooling unit based on said environmental condition.

Claim 61 (previously presented): The fuel cell system as set forth in claim 57, wherein the driving of said gas flow unit and said cooling unit is controlled according to the amount of water remaining in said power generation unit which is calculated based on said environmental condition and the quantity of electric power generated by said power generation unit.

Claim 62 (previously presented): The fuel cell system as set forth in claim 42, further comprising a fuel supply unit configured to supply the fuel for reaction with said oxidant gas from a fuel storage unit to said power generation unit at the time of driving said power generation unit.

Claim 63 (previously presented): The fuel cell system as set forth in claim 42, further comprising a pressure control unit configured to control pressure of the fuel supplied to said power generation unit.

Claim 64 (withdrawn): A fuel cell comprising: a power generation unit provided in a side surface with an opening portion of a conduit for an oxidant gas containing at least oxygen; and a heat radiation unit connected to said power generation unit so as to radiate heat from said power generation unit; wherein a gas flow means for causing said oxidant gas to flow in said conduit is disposed along the side surface of said power generation unit, and a cooling means for cooling said heat radiation unit is disposed along said side surface adjacent to said gas flow means.

Claim 65 (withdrawn): The fuel cell as set forth in claim 64, wherein said fuel cell has a casing for covering at least said power generation unit, said heat radiation unit, said gas flow means, and said cooling means.

Claim 66 (withdrawn): The fuel cell as set forth in claim 64, wherein said gas flow means suctions in said oxidant gas through said opening portion and discharges said oxidant gas through a first exhaust port provided in said casing so as thereby to cause said oxidant gas to flow in said conduit.

Claim 67 (withdrawn): The fuel cell as set forth in claim 65, wherein said gas flow means suctions said oxidant gas into said fuel cell through a first intake port provided in said casing to thereby form a flow of said oxidant gas independent of the flow of said oxidant gas generated by said cooling means.

Claim 68 (withdrawn): The fuel cell as set forth in claim 67, wherein said first intake port is provided at a position opposed to said first exhaust port, and said gas flow means is disposed between said first intake port and said first exhaust port.

Claim 69 (withdrawn): The fuel cell as set forth in claim 65, wherein said cooling means discharges said oxidant gas through a second exhaust port provided in said casing to thereby cause said oxidant gas to flow in proximity of said heat radiation unit.

Claim 70 (withdrawn): The fuel cell as set forth in claim 65, wherein said cooling means suctions said oxidant gas into said fuel cell through a second intake port provided in said casing.

Claim 71 (withdrawn): The fuel cell as set forth in claim 70, wherein said second intake port is provided at a position opposed to said second exhaust port, and said cooling means is disposed between said second intake port and said second exhaust port.

Claim 72 (withdrawn): The fuel cell as set forth in claim 64, wherein said opening portion is tapered so that it becomes narrower along a depth direction of said conduit for said oxidant gas.

Claim 73 (withdrawn): The fuel cell as set forth in claim 64, wherein an opening width of said opening portion is greater than the conduit width of said conduit for said oxidant gas.

Claim 74 (withdrawn): The fuel cell as set forth in claim 73, wherein said opening width is broader than said conduit width along at least one of a sideways direction and the longitudinal direction.

Claim 75 (withdrawn): The fuel cell as set forth in claim 64, further comprising detection means for detecting an environmental condition for controlling the driving of said gas flow means and said cooling means.

Claim 76 (withdrawn): The fuel cell as set forth in claim 75, wherein said detection means detects at least one of temperature and humidity as said environmental condition.

Claim 77 (withdrawn): The fuel cell as set forth in claim 75, wherein said detection means are arranged at respective positions so as to be capable of detecting the temperature and humidity of said oxidant gas supplied to said power generation unit, the temperature and humidity of said oxidant gas discharged from said power generation unit, and the temperature of said power generation unit.

Claim 78 (withdrawn): The fuel cell as set forth in claim 75, further comprising a control substrate supporting thereon a control circuit for controlling the driving of at least said gas flow means and said cooling means based on said environmental condition.

Claim 79 (withdrawn): The fuel cell as set forth in claim 64, wherein a water discharge means for discharging water from said conduit for the fuel supplied to said power generation unit for reaction with said oxidant gas is disposed along an end face of said power generation unit.

Claim 80 (withdrawn): The fuel cell as set forth in claim 79, wherein a fuel supply means for supplying said fuel from a fuel storage unit to said power generation unit at the time of driving said power generation unit is disposed along an end face of said power generation unit.

Claim 81 (currently amended): An electronic apparatus comprising a fuel cell system, said fuel cell system comprising:

a power generation unit provided with a conduit for an oxidant gas containing at least oxygen;

a heat radiation unit connected to a first side of said power generation unit so as to radiate heat from said power generation unit;

a heat transfer portion extending in said heat radiation unit from a separator inside said power generation unit;

a gas flow unit configured to suck said oxidant gas into a first intake port disposed on a second side of said power generation unit; ~~and~~

a cooling unit configured to suck said oxidant gas into a second intake port disposed on the second side said power generation unit and adjacent to said first intake port~~, wherein said cooling unit is driven independently of said gas flow unit so as to cool said heat radiation unit~~;

a plurality of temperature detectors which detect a temperature of the power generation unit, the heat radiation unit, and the oxidant gas; and

a humidity detector which detects a humidity of the oxidant gas,

wherein an amount of moisture located inside the power generation unit and a temperature of the power generation unit are determined based on the temperatures detected by the plurality of temperature detectors and the humidity detected by the humidity detector,

wherein when the amount of moisture located inside the power generation unit and/or the temperature of the power generation unit deviate from a stable zone of the power generation unit having a proper moisture content and appropriate temperature, the cooling unit is driven independently from said gas flow unit to return a state of the power generation unit to the stable zone,

wherein when the amount of moisture located inside the power generation unit is superfluous, the superfluous moisture is discharged with air by the gas flow unit, and

wherein said electronic apparatus is driven by being supplied with electric power from said fuel cell system.

Claim 82 (withdrawn): An electronic apparatus comprising a fuel cell, said fuel cell comprising: a power generation unit provided in a side surface with an opening portion of a conduit for an oxidant gas containing at least oxygen; and a heat radiation unit connected to said power generation unit so as to radiate heat from said power generation unit; wherein a gas flow means for causing said oxidant gas to flow in said conduit is disposed along the side surface of said power generation unit, and a cooling means for cooling said heat radiation unit is disposed along said side surface adjacently to said gas flow means, wherein said electronic apparatus is driven by being supplied with electric power from said fuel cell.

Claim 83 (previously presented): The fuel cell system as set forth in claim 42, wherein the gas flow unit and the cooling unit cause the respective oxidant gases to flow in a

same direction from an intake side of the fuel cell system to an exhaust side of the fuel cell system.

Claim 84 (previously presented): The fuel cell system as set forth in claim 83, wherein the gas flow unit and the cooling unit are positioned on the intake side of the fuel cell system.

Claim 85 (previously presented): The fuel cell system as set forth in claim 81, wherein the gas flow unit and the cooling unit cause the respective oxidant gases to flow in a same direction from an intake side of the fuel cell system to an exhaust side of the fuel cell system.

Claim 86 (previously presented): The fuel cell system as set forth in claim 85, wherein the gas flow unit and the cooling unit are positioned on the intake side of the fuel cell system.